

REMARKS

Summary of the Office Action

Claims 1, 2, 4, 5, 8, 9, 11, and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi (U.S. Patent No. 6,108,139) (hereinafter "Takahashi").

Claims 3 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi as applied to claims 1, 2, 4, 5, 8, 9, 11 and 12 above, and further in view of Nakagawa (U.S. Patent No. 3,887,269) (hereinafter "Nakagawa").

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi as applied to claims 1, 2, 4, 5, 8, 9, 11 and 12 above, and further in view of Arai et al. (U.S. Patent No. 5,818,809) (hereinafter "Arai").

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi as applied to claims 1, 2, 4, 5, 8, 9, 11 and 12 above, and further in view of Ward et al. (Published April 1971, "Lens Aberration Correction by Holography") (hereinafter "Ward").

Summary of the Response to the Office Action

Applicant has amended independent claim 1 to include features of previous claim 3. Applicant has amended independent claim 8 to include features of previous claim 10. Similar features have been added to independent claim 12, as have been added to independent claims 1 and 8. Accordingly, claims 3 and 10 have been canceled without prejudice or disclaimer. Accordingly, claims 1, 2, 4-9 and 11-12 currently remain pending.

Rejections under 35 U.S.C. §§ 102(b) and 103(a)

Claims 1, 2, 4, 5, 8, 9, 11, and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi. Claims 3 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi as applied to claims 1, 2, 4, 5, 8, 9, 11 and 12 above, and further in view of Nakagawa. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi as applied to claims 1, 2, 4, 5, 8, 9, 11 and 12 above, and further in view of Arai. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi as applied to claims 1, 2, 4, 5, 8, 9, 11 and 12 above, and further in view of Ward.

Applicant has amended independent claim 1 to include features of previous claim 3. Applicant has amended independent claim 8 to include features of previous claim 10. Similar features have been added to independent claim 12, as have been added to independent claims 1 and 8. Accordingly, claims 3 and 10 have been canceled without prejudice or disclaimer. To the extent that the rejections might still be deemed to apply to the newly-amended claims, they are respectfully traversed for at least the following reasons.

In the Office Action, at page 5, the Examiner concedes that Takahashi does not teach previous claim 3's feature of "wherein a relationship of $0.2 < |f_1/f| < 0.82$ is established, wherein a composite focal length of the converging lens and the diverging lens of the aberration corrector is f and a focal length of thus driven one of the converging lens and the diverging lens is f_1 ." However, the Office Action then applies Nakagawa as allegedly curing the deficiencies of Takahashi in this regard. Applicants respectfully traverse the Office Action's assertions in this regard for at least the following reasons.

First, Applicants respectfully submit that “f1” as described in newly-amended independent claim 1 of the instant application designates the focal length of thus driven one of the converging lens (for example, 9a in Fig. 3) and the diverging lens (for example, 9b in Fig. 3). Thus, this refers to, for example, one element lens. On the other hand, Applicants respectfully submit that in the arrangement disclosed in col. 1 of Nakagawa, f123 or f1 designates a composite focal length of three elements-one group lenses 1-3, as disclosed in Col. 2, lines 24-25 and Fig. 1.

Second, Applicants respectfully submit that “f” as described in newly-amended independent claim 1 of the instant application designates the composite focal length of the converging lens and the diverging lens of the aberration corrector (for example, 9a and 9b in Fig. 3). Thus, this refers to, for example, two elements-one group lenses. On the other hand, Applicants respectfully submit that in the arrangement disclosed in col. 1 of Nagasawa, f designates the composite focal length of the whole lens system, including three elements-one group lenses 1-3 and two elements-one group lenses 4-5, as disclosed in Col. 2, lines 21-22 and Fig. 1.

Therefore, Applicants respectfully submit that the relationship of $0.2 < |f1/f| < 0.82$ can never be disclosed in Nagasawa. As a result, Applicants respectfully submit that it is clear that the Office Action’s assertions to the contrary in this regard are technically inaccurate.

Third, Applicants respectfully submit that the arrangement described in the combination of features of newly-amended independent claim 1 of the instant application involves one of the converging lens and the diverging lens being driven. On the other hand, Nagasawa discloses a static lens system without a movable lens element. Applicants respectfully submit that this is

clearly understood and known from the description of Examples 1-4. Applicants respectfully submit that when the radius of curvature of lens elements r_1 to r_{10} are compared, the thickness of the lenses or distances between the lenses d_1 to d_{10} , refractive indexes n_1 to n_{10} , and chromatic dispersions v_1 to v_{10} with respect to each of the lens elements among Examples 1 to 4, there is not even a single identity in the lenses.

Therefore, Applicants respectfully submit that the Examples merely show different embodiments under different structure of lens elements, and all lenses 1-5 are fixedly mounted and cannot move for correcting aberration. Applicants respectfully submit that it would be impossible for a person having ordinary skill in the subject art to select a movable lens (i.e., a driven one) out of the completely fixed and determined lens elements disclosed in the applied art. Accordingly, Applicants respectfully submit that that it is impossible to combine features of the static lens system disclosed in Nakagawa to an adjustable lens system disclosed in Takahashi. As a result of the diverging teachings in these respective references in this regard, one would not be led to make such a combination and instead the teaching of a static lens system in Nakagawa would teach away from, and/or would be unworkable for, use within an adjustable lens system such as Takahashi.

Independent claim 8 and independent claim 12 have also been amended to describe similar features as those discussed above with regard to newly-amended independent claim 1. Accordingly, Applicants respectfully submit that similar arguments as discussed above with regard to newly-amended independent claim 1 also apply to newly-amended independent claims 8 and 12.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. §§ 102(b) and 103(a) should be withdrawn because Takahashi and Nakagawa, whether taken separately or in combination, do not teach or suggest each feature of independent claims 1, 8 and 12, as amended. As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." Thus, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)." Similarly, MPEP § 2143.03 instructs that "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974)."

Furthermore, Applicants respectfully asserts that the dependent claims are allowable at least because of their dependence from claims 1 or 8, and the reasons set forth above. Moreover, Applicant respectfully submits that the additionally applied references to Arai and Ward, with respect to claims 6 and 7, do not cure the deficiencies discussed above with regard to Takahashi and Nakagawa, whether taken separately or in any combination with each other.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims currently under consideration are in condition for allowance, and respectfully request reconsideration and timely allowance of these claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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